



DOCKET NO.: ISIS-5376

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Andrei P. Guzaev, et al.

Application No.: 10/733,831

Filing Date: December 10, 2003

For: **UNIVERSAL SUPPORT MEDIA FOR SYNTHESIS OF OLIGOMERIC COMPOUNDS**

Confirmation No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

DATE OF DEPOSIT: February 12, 2004

I HEREBY CERTIFY THAT THIS PAPER IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE UNITED STATES PATENT AND TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

Elizabeth A. McLoud

TYPED NAME: Elizabeth A. McLoud

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☒ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of

the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- ☐ In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:

☐ Certification in Accordance with § 1.97(e) is attached; or

☐ The fee of **\$180.00** as set forth in § 1.17(p) is attached.

- ☐ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:

☐ Certification in Accordance with § 1.97(e) is attached;
or

☐ The fee of **\$180.00** as set forth in § 1.17(p) is attached.

- ☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of **\$180.00** as set forth in § 1.17(p).

- ☐ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

- ☒ Copies of references listed on the attached Form PTO-1449 are enclosed herewith
- ☒ Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

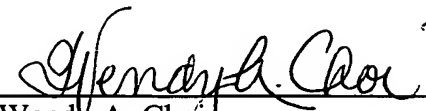
EXCEPT THAT:

- ☐ In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- ☒ In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
- ☒ Copies of references **1-21** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **10/260,076**, filed **September 30, 2002** now **U.S. Patent No. 6,653,468**.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050. This form is submitted in duplicate.

- ☐ The relevance of those listed references which are not in the English language is as follows:
- ☒ There are no listed references which are not in the English language.

Date: February 12, 2004


Wendy A. Choi
Registration No. 36,697

WOODCOCK WASHBURN LLP
One Liberty Place - 46th Floor
Philadelphia, PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439



Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5376	Application No. 10/733,831
	Applicant Andrei P. Guzaev, et al.	
	Filing Date December 10, 2003	Group Not Yet Assigned
	Confirmation No. Not Yet Assigned	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
	1 Azhayev, A.V., "A new universal solid support for oligonucleotide synthesis," <i>Tetrahedron</i> , 1999 , <i>55</i> , 787-800	
	2 Azhayev, A.V., et al., "Amide group assisted 3'-dephosphorylation of oligonucleotides synthesized on universal A-supports," <i>Tetrahedron</i> , 2001 , <i>57</i> , 4997-4986	
	3 Besecke, S., et al., "Bicycloheptenedicarboxylic anhydride derivative polymers," Priority Appln. Information, DE 1991-4117369, <i>SciFinder</i> , August 29, 2002 , 2 pages (abstract only)	
	4 Crea, R., et al., "Synthesis of oligonucleotides on cellulose by a phosphotriester method," <i>Nucleic Acids Research</i> , January 22, 1980 , <i>8(10)</i> , 2331-2348	
	5 Lyttle, M.H., et al., "A new universal linker for solid phase DNA synthesis," <i>Nucleic Acids Research</i> , 1996 , <i>24(14)</i> , 2793-2798	
	6 Lyttle, M.H., et al., "A phosphate bond universal linker for DNA synthesis," <i>Nucleosides & Nucleotides</i> , 1999 , <i>18(8)</i> , 1809-1824	
	7 McCluskey, A., et al., "The first two cantharidin analogues displaying PP1 selectivity," <i>SciFinder</i> , August 29, 2002 , 3 pages (abstract only)	
	8 Nelson, P.S., et al., "3'-terminal modification of oligonucleotides using a universal solid support," <i>Nucleosides & Nucleotides</i> , 1997 , <i>16(10&11)</i> , 1951-1959	
	9 Nelson, P.S., "Rainbow™ universal CPG: A versatile solid support for oligonucleotide synthesis," <i>Bio Techniques</i> , 1997 , <i>22</i> , 752-756	
	10 Scheuer-Larsen, C., et al., "Introduction of a universal solid support for oligonucleotide synthesis," <i>Nucleosides & Nucleotides</i> , 1997 , <i>16(1&2)</i> , 67-80	
EXAMINER		DATE CONSIDERED



Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5376	Application No. 10/733,831
		Applicant Andrei P. Guzaev, et al.	
		Filing Date December 10, 2003	Group Not Yet Assigned
		Confirmation No. Not Yet Assigned	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	11	Schwartz, M.E., et al., "A universal adapter for chemical synthesis of DNA or RNA on any single type of solid support," <i>Pergamon</i> , November 2, 1994, 27-30	
	12	Scott, S., et al., "A universal support for oligonucleotide synthesis," <i>Innovation and Perspectives in Solid Phase Synthesis</i> , Epton, R. (Ed.), 1994, 115-124	
	13	Reg. No. 41532-47-2 "Isobenzofuran-4,7-imine-1,3-dione,3a,4,7,7a-tetrahydro-8-methyl-(9CI)," <i>SciFinder</i> , August 29, 2002 2 pages (abstract only)	
	14	Reg. No. 99237-90-8 "Isobenzofuran-4,7-imine-1,3-dione, 8-acetyl-3a,4,7,7a-tetrahydro-, (3aa,4a,7a,7 aa)-(9CI), <i>SciFinder</i> , August 29, 2002, 2 pages (abstract only)	
EXAMINER		DATE CONSIDERED	

Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5376	Application No. 10/733,831
	Applicant Andrei P. Guzaev, et al.	
	Filing Date December 10, 2003	Group Not Yet Assigned
	Confirmation No. Not Yet Assigned	

U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass
	15	5,869,696	02/09/99	Reddy, et al.	548	564
	16	5,886,193	03/23/99	McLean, et al.	548	544
	17	6,166,239	12/26/00	Manoharan	558	268
	18	6,294,664 B1	09/25/01	Ravikumar, et al.	536	25.3
	19	6,310,198 B1	10/30/01	Tang, et al.	536	25.3
	20	6,429,309 B1	08/06/02	Kwiatkowski, et al.	536	25.3
	21	6,653,468 B1	11/25/03	Guzaev, et al.	536	25.31

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO

EXAMINER	DATE CONSIDERED
-----------------	------------------------